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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,733	06/20/2001	Yoichiro Sako	450100-3601.9	6921

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NEW YORK, NY 10151

EXAMINER

DADA, BEEMNET W

ART UNIT	PAPER NUMBER
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2135

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,733

Applicant(s)

SAKO ET AL.

Examiner

Beemnet W Dada

Art Unit

2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 59-105 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 59-105 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in reply to an amendment filed on November 05, 2004. Claims 59, 70, 75, 80, 91, 96, 101 and 103-105 have been amended. Claims 59-105 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 59-67, 80-88, and 103 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanota et al (hereinafter Kanota), US Patent 5,418,853, in view of Takahashi, US Patent 5,960,151, and further in view of Okamoto et al (hereinafter Okamoto) US Patent 5,627,655.

4. As per claims 59, 80, and 103, Kanota discloses digital video signal recorder capable of inhibiting unauthorized copying of an analog video signal (abstract), comprising:

an input terminal for receiving said analog video signal (col 4 ln 35-37), said analog video signal including a copy protection signal (see for example; col 6 ln 5-10);

analog-to-digital converting means for converting said analog video signal to digital video data (see for example; col 4 ln 38-44);

compression means for compressing said digital video data to generate compressed video data (see for example; col 4 ln 45-50);

detecting means for detecting said copy protection signal included in said analog video signal (see for example; col 4 ln 61-65 and col 7 ln 17-20);

generating means for generating copy management information according to a state of said copy protection signal detected by said detecting means (see for example; col 4 ln 61-col 5 ln 14).

Kanota further discloses recording means for recording compressed video data (see for example; col 5 ln 15-18). Kanota does not explicitly teach appending means for appending said copy management information to said compressed video data; and recording means for recording appended copy management information, said copy management information being recorded at a pre-set position of a record medium.

However, Takahashi discloses generating of copy management information (see for example; col 5 ln 49-50) and such appending and recording means of said copy management information with compressed video data (see for example; col 5 ln 49-59 and col 6 ln 12-19). Both Kanota and Takahashi disclose a means of inhibiting copying of analog video signals. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the appending and recording means of Takahashi within the system of Kanota because it would have increased copy protection by recording appended copy management data on the newly recorded video data such that further inhibition of recording is extended to the newly recorded data.

The combination of Kanota and Takahashi is silent on the recorder where the copy management information is digital information that is generated based on an analog signal. Okamoto teaches this feature. Okamoto teaches a recording/reproducing apparatus for video

signals [see abstract], that is capable of inhibiting unauthorized copying of an analog video signal [column 2, lines 1-16, and 46-59], wherein a copy management information is digital information that is generated based on an analog signal [column 3, lines 1-24]. Kanota, Takahashi and Okamoto disclose means of inhibiting copying of analog video signals. It would have been obvious to one having ordinary skill in the art at the time the of the applicant's invention to employ the teachings of Okamoto within the combination of Kanota and Takahashi because it would have allowed copy protection of analog signals which are converted to digital signals.

5. As per claims 60 and 81, Kanota- Takahashi-Okamoto discloses the claimed limitations as described above (see claim 59). Kanota further discloses wherein said copy protection signal is a signal coded with plural bits, is located at a pre-set position (see for example; col 3 ln 55-64) of said analog video signal and is indicative of a copy generation limitation (see for example; col 4 ln 59-col 5 ln 14).

6. As per claims 61 and 82, Kanota- Takahashi-Okamoto discloses the claimed limitations as described above (see claim 60). Kanota further discloses wherein said pre-set position of said analog video signal is a pre-set horizontal period within a vertical blanking period of said analog video signal (see for example; col 3 ln 55-64).

7. As per claims 62 and 83, Kanota- Takahashi-Okamoto discloses the claimed limitations as described above (see claim 61). Kanota further discloses wherein said pre-set horizontal period is the twentieth horizontal period within said vertical blanking period (see for example; col 3 ln 55-64, Kanota discloses an odd or even interval).

8. As per claims 63 and 84, Kanota-Takahashi-Okamoto discloses the claimed limitations as described above (see claim 59). Takahashi discloses such recording means at a predetermined interval (as described in claim 59) wherein said pre-set position of said record medium is located within a data area and/or a lead-in area of said record medium (see for example; col 7 ln 8-18).

9. As per claims 64 and 85, Kaiota-Takahashi-Okamoto discloses the claimed limitations as described above (see claim 63). Takahashi discloses such recording means at a predetermined interval (as described in claim 63) wherein said pre-set position of said record medium is located within a header portion which is within said data area of said record medium (see for example; col 7 ln 8-18).

10. As per claims 65 and 86, Kanota-Takahashi-Okamoto discloses the claimed limitations as described above (see claim 59). As for wherein the video data is partitioned into units and said copy management information is located in at least one of said units, Kanota discloses recording of compressed digital data onto a magnetic recording medium. Such partitioning of data into units is inherent to any system using digitally compressed data.

11. As per claims 66 and 87, Kanota-Takahashi-Okamoto discloses the claimed limitations as described above (see claim 59). As for said record medium is an optical disc, a magneto-optical disc, a magnetic hard disk or an integrated circuit (IC) memory card, Kanota discloses copying of digital data onto a recording medium (see for example; col 2 ln 14-31). Such recording mediums are well known in the art for use in recording digital signals.

12. As per claims 67 and 88, Kanota-Takahashi-Okamoto discloses the claimed limitations as described above (see claim 59). As for wherein said analog video signal is an analog video signal having a combination signal of plural pseudo synchronization pulses and plural white peak signals across plural horizontal periods in a vertical blanking period of said analog video signal, Kanota discloses an analog video signal with plural horizontal periods in a vertical blanking period of said analog video signal (see for example; col 3 53-63), such plural pseudo synchronization pulses and plural white peak signals are inherent to such analog signal.

13. Claims 68-69 and 89-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanota US Patent 5,418,853 in view of Takahashi, US Patent 5,960,151 and further in view of Okamoto US Patent 5,627,655 as applied above and further in view of Ryan, US Patent 4,577,216.

14. As per claims 68 and 89, Kanota-Takahashi-Okamoto discloses the claimed limitations as described above (see claim 59). Kanota discloses such recording of analog video signal, however is silent on such video signals associated color burst signal and wherein the phase of at least a portion of said color burst signal is changed from an original state. Ryan discloses copy inhibition of video signals having such associated color burst signal and wherein the phase of at least a portion of said color burst signal is changed from an original state (see for example; col 2 ln 1-51). Kanota, Takahashi, Okamoto and Ryan disclose a means of inhibiting copying of video data using copy protection. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the analog signal of Ryan within the system of

Kanota-Takahashi-Okamoto because it would have increased visual appeal of the recorded video data due to the extension into color video signals.

15. As per claims 69 and 90, Kanota-Takahashi-Okamoto-Ryan discloses the claimed limitations as described above (see claim 68) Kanota further discloses wherein said copy protection signal is a signal coded with plural bits, is located at a pre-set position (see for example; col 3 ln 55-64) of said analog video signal and is indicative of a copy generation limitation (see for example; col 4 ln 59-col 5 ln 14).

16. Claims 70-74 and 91-95 rejected under 35 U.S.C. 103(a) as being unpatentable over Kanota US Patent 5,418,853, in view of Kimoto et al (hereinafter Kimoto), US Patent 5,303,294 and further in view of Okamoto US Patent 5627655.

17. As per claims 70 and 91, Kanota discloses digital video signal recorder capable of inhibiting unauthorized copying of an analog video signal (abstract), comprising:

an input terminal for receiving said analog video signal (col 4 ln 35-37), said analog video signal including a copy protection signal (see for example; col 6 ln 5-10);

analog-to-digital converting means for converting said analog video signal to digital video data (see for example; col 4 ln 38-44);

compression means for compressing said digital video data to generate compressed video data (see for example; col 4 ln 45-50);

detecting means for detecting said copy protection signal included in said analog video signal (see for example; col 4 ln 61-65 and col 7 ln 17-20);

generating means for generating copy management information according to a state of said copy protection signal detected by said detecting means (see for example; col 4 ln 61-col 5ln 14).

Kanota further discloses recording means for recording said scrambled video data (see for example; col 4 ln 45-60). Kanota does not explicitly teach such recording of said key information, said key information being recorded at a pre-set position of a record medium. Kimoto discloses a mean of scrambling data and such recording means of recording the scrambled data with, aid key information, said key information being recorded at a pre-set position of a record medium (see for example; col 5 ln 5-20).

Both Kanota and Kimoto disclose a means of inhibiting copying of video data. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the recording means of Kimoto within the system of Kanota because it would have increased copy protection and usefulness of the newly recorded data by allowing for the de-scrambling of video data during reproduction of the newly copied video data.

The combination of Kanota and Kimoto is silent on the recorder where the copy management information is digital information that is generated based on an analog signal. Okamoto teaches this feature. Okamoto teaches a recording/reproducing apparatus for video signals [see abstract], that is capable of inhibiting unauthorized copying of an analog video signal [column 2, lines 1-16, and 46-59], wherein a copy management information is digital information that is generated based on an analog signal [column 3, lines 1-24]. Kanota, Kimoto and Okamoto disclose means of inhibiting copying of analog video signals. It would have been obvious to one having ordinary skill in the art at the time the of the applicant's invention to employ the teachings of Okamoto within the combination of Kanota and Kimoto because it would have allowed copy protection of analog signals which are converted to digital signals.

18. As per claims 71 and 92, Kanota-Kimoto-Okamoto discloses the claimed limitations as described above (see claim 70). Kimoto discloses recording said key at a pre-set position (as described above) and further discloses wherein said pre-set position of said record medium is located within a data area and/or a lead-in area of said record medium (see for example; col 5 ln 5-20).

19. As per claims 72 and 93, Kanota-Kimoto-Okamoto discloses the claimed limitations as described above (see claim 70). Kimoto further discloses wherein said pre-set position of said record medium is located within a header portion, which is within said data area of said record medium (see for example; col 5 ln 10-19).

20. As per claims 73 and 94, Kanota-Kimoto-Okamoto discloses the claimed limitations as described above (see claim 70). As for wherein the video data is partitioned into units and said copy management information is located in at least one of said units, Kanota discloses recording of compressed digital data onto a magnetic recording medium. Such partitioning of data into units is inherent to any system using digitally compressed data.

21. As per claims 74 and 95, Kanota-Kimoto-Okamoto discloses the claimed limitations as described above (see claim 70). Kanota further discloses wherein said key information corresponds to bit sequence data used to implement the scrambling (see for example; col 5 ln 56-64).

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22. Claims 75-79, 96-102, and 104-105 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanota US Patent 5,418,853, in view of Takahashi, US Patent 5,960,151, and further in view of Kimoto, US Patent 5,303,294 and further in view of Okamoto US Patent 5,627,655.

23. As per claims 75, 96, 101, 104, and 105, Kanota discloses digital video signal recorder capable of inhibiting unauthorized copying of an analog video signal (abstract), comprising:

an input terminal for receiving said analog video signal (col 4 ln 35-37), said analog video signal including a cope protection signal (see for example; col 6 ln 5-10);

analog-to-digital converting means for converting said analog video signal to digital video data (see for example; col 4 ln 38-44);

compression means for compressing said digital video data to generate compressed video data (see for example; col 4 ln 45-50);

detecting means for detecting said copy protection signal included in said analog video signal (see for example; col 4 ln 61-65 and col 7 ln 17-20);

generating means for generating copy management information according to a state of said copy protection signal detected by said detecting means (see for example; col 4 ln 61-col 5 ln 14) scrambling means for generating scrambled video data according to a key (see for example; col 4 ln 50-60);

recording means for recording said scrambled video data (see for example; col 4 ln 45-60). Kanota does not explicitly teach appending means for appending said copy management information to said scrambled video data; and recording means for recording said scrambled video data with said copy management information, said copy management information being recorded at a pre-set position of a record medium.

However, Takahashi discloses generating of copy management information (see for example; col 5 ln 49-50) and such appending and recording means of said copy management information with compressed video data (see for example; col 5 ln 49-59 and col 6 ln 12-19). Both Kanota and Takahashi disclose a means of inhibiting copying of analog video signals. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the appending and recording means of Takahashi within the system of Kanota because it would have increased copy protection by recording appended copy management data on the newly recorded video data such that further inhibition of recording is extended to the newly recorded data. Furthermore, the Kanota-Takahashi combination does not explicitly teach appending and recording of said key information. Kimoto discloses a means of scrambling data and such recording means of recording the scrambled data with said key information, said key information being recorded at a pre-set position of a record medium (see for example; col 5 ln 5-20).

Both Kanota- Takahashi and Kimoto disclose a means of inhibiting copying of video data. It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the recording means of Kimoto within the Kanota-Takahashi combination because it would have increased copy protection and usefulness of the newly recorded data by allowing for the de-scrambling of video data during reproduction of the newly copied video data. Thus providing a means of protecting data through scrambling and a means of reproducing the scrambled data.

In further regards to claims 101, 104, and 105, Kanota further discloses encoding and modulating data and recording said encoded and modulated data on a record medium (see for example; col 4 ln 50-56; such modulation of data is inherent to any encoding system for recording formatted data onto a record medium).

The combination of Kanota-Takahashi-Kimoto is silent on the recorder where the copy management information is digital information that is generated based on an analog signal. Okamoto teaches this feature. Okamoto teaches a recording/reproducing apparatus for video signals [see abstract], that is capable of inhibiting unauthorized copying of an analog video signal [column 2, lines 1-16, and 46-59], wherein a copy management information is digital information that is generated based on an analog signal [column 3, lines 1-24]. Kanota, Takahashi, Kimoto and Okamoto disclose means of inhibiting copying of analog video signals. It would have been obvious to one having ordinary skill in the art at the time the of the applicant's invention to employ the teachings of Okamoto within the combination of Kanota, Takahashi and Kimoto because it would have allowed copy protection of analog signals which are converted to digital signals.

24. As per claims 76 and 97, Kanota as modified further discloses wherein said copy protection signal is a signal coded with plural bits, is located at a pre-set position (see for example; Kanota, col 3 ln 55-64) of said analog video signal and is indicative of a copy generation limitation (see for example; Kanota, col 4 ln 59-col 5 ln 14).

25. As per claims 77 and 98, Kanota as modified further discloses wherein said pre-set position of said record medium is located within a data area and/or a lead-in area of said record medium (see for example; Takahashi, col 7 ln 8-18).

26. As per claims 78, 99, and 102, Kanota as modified further discloses wherein said pre-set position of said record medium is located within a header portion which is within said data area of said record medium (see for example; Takahashi, col 7 ln 8-18).

27. As per claims 79 and 100 Kanota-Kimoto discloses the claimed limitations as described above (see claim 75). Kanota further discloses wherein said key information corresponds to bit sequence data used to implement the scrambling (see for example; col 5 ln 56-64).

Response to Arguments

28. Applicant's arguments with respect to claim 59-105 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) US Patent 5,231,546 to Shimada teaches a recording and reproducing apparatus with limited digital copying.

b) US Patent 5,144,658 to Takahashi teaches repeater of digital interface signal.

c) US Patent 5,574,787 to Ryan teaches method for copy protection for video platform and unprotected source material.

d) US Patent 5,315,448 to Ryan teaches copy protection for hybrid digital video tape recorder and unprotected source material.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beemnet W Dada whose telephone number is (571) 272-3847. The examiner can normally be reached on Monday - Friday (9:00 am - 5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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